

RESPONSE TO AMENDMENT

Status of Claims

1. Claims 1, 3-4, 6, 9-13, and 18-21 are pending. Claims 2, 8, and 40-46 were canceled; and claims 1, 9, 11-13, 18, and 21 were amended in the response filed on 12/2/2009.
2. The amendment to the specification, filed on 12/02/2009, has been entered.

Withdrawn Rejections

3. The objections to the specification, made of record in the office action mailed on 9/2/2009, have been withdrawn due to applicant's amendment, filed on 12/02/2009.
4. The 35 USC 112 rejections of claims 11-13, 18-20, 22, and 40-41, made of record in the office action mailed on 9/2/2009, have been withdrawn due to applicant's amendment filed on 12/2/2009.
5. The 35 USC 102 rejections of claims 1-3, 6, 8, and 21-22 as anticipated by Small, made of record in the office action mailed on 9/2/2009, have been withdrawn due to applicant's amendment filed on 12/2/2009.
6. The 35 USC 102 rejections of claims 18 and 19 as anticipated by Nagamoto, made of record in the office action mailed on 9/2/2009, have been withdrawn due to applicant's amendment filed on 12/2/2009.
7. The 35 USC 103 rejections of claims 4, 9-11, 13, 18, and 20 as obvious over Small in view of Hershey, made of record in the office action mailed on 9/2/2009, have been withdrawn due to applicant's amendment filed on 12/2/2009.

8. The 35 USC 103 rejections of claim 12 as obvious over Small in view of Hershey in view of Swerin, made of record in the office action mailed on 9/2/2009, have been withdrawn due to applicant's amendment filed on 12/2/2009.

9. The 35 USC 103 rejections of claims 1-3, 6, 8, 21-22 as obvious over Thiberge in view of Imamura, made of record in the office action mailed on 9/2/2009, have been withdrawn due to applicant's amendment filed on 12/2/2009.

10. The 35 USC 103 rejections of claims 4, 9-11, and 13 as obvious over Thiberge in view of Imamura in view of Hershey, made of record in the office action mailed on 9/2/2009, have been withdrawn due to applicant's amendment filed on 12/2/2009.

11. The 35 USC 103 rejections of claim 12 as obvious over Thiberge in view of Imamura in view of Hershey in view of Swerin, made of record in the office action mailed on 9/2/2009, have been withdrawn due to applicant's amendment filed on 12/2/2009.

12. The 35 USC 103 rejections of claims 1-3, 6, 21-22, and 40-41 as obvious over Nagamoto, made of record in the office action mailed on 9/2/2009, have been withdrawn due to applicant's amendment filed on 12/2/2009.

REJECTIONS

13. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

14. Claims 4, 18-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4 and 20 are indefinite because they claim only a range of time for Gurley density. Gurley density is a measure of time for a given volume of air at a given pressure to pass through a barrier. However, the claims only indicate an amount of time. The claims do not indicate either pressure or volume. Prior art indicates air volumes from 10cc to 20 ounces. Both the specification and claims are silent as to the both the air volume and pressure. Based on either the specification or the claims, one of ordinary skill in the art would lack sufficient information to determine what paper would meet the claimed limitations.

Claims 18 and 21 are indefinite because it is unclear how a dye can increase the ability of the release paper backing to transmit light. With respect to light filtration, color is defined by the wavelength of light that passes through the material, i.e. the wavelengths of light that are not absorbed. Therefore, a dye by definition permits some wavelength of light to pass and blocks other wavelengths of light. While a dye may be considered to permit the passage of some wavelengths it is also blocking the passage of others. Therefore, a dye does not increase transmitted light it filters out wavelengths of light.

Claim Rejections - 35 USC § 103

15. Claims 1, 3, 6, 9, 11-13, 18-19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagamoto, JP 2001-271295, in view of Yung, USPN 6,618,067, in view of Taniguchi, USPN 5,125,930.

Regarding claims 1, 3, 18-19, and 21, Nagamoto discloses a release paper backing (p. 1, para 0001) comprising a network of fibers (paper, p. 2, para 0005) having a transmittance between about 40% and 50% (p. 2, para 0004). Nagamoto discloses the release paper backing has a coating to resist the penetration of a release coating (barrier layer, p. 3, para 0008).

Nagamoto does not teach the release paper backing has a yellow dye.

Yung is drawn to a method for controlling a printer by using an amber light (col. 1, ln. 10-13) with a transmittance of about 680 nm (col. 4, ln 40). Yung discloses regions of the print sheet have a yellow dye (colorant, col. 4, ln. 41). Yung discloses it is well known in the art that amber light transmits through a yellow colored region (col. 8, ln. 30-32). Yung discloses the amber ray transmission can be used to identify and align the print sheet (col. 5, ln. 34-41). It would have been obvious to one of ordinary skill in the art at the time of invention to provide yellow color for transmittance of light with a wavelength of about 680 nm, as taught in Yung, in the release sheet, taught in Nagamoto, to obtain a release sheet that has a yellow color. One of ordinary skill in the art would have been motivated to provide a yellow color because it is well known that yellow light transmits through yellow colored regions (col. 8, ln. 30-32) and the yellow colored region allows effective alignment of a substrate between sensors (col. 5, ln. 34-41). Yung is analogous art related to selective filtration of light.

Nagamoto in view of Yung suggest a yellow colored backing. However, Nagamoto in view of Yung do not disclose the yellow dye in the release paper backing.

Taniguchi is drawn to a due for use in paper (col. 1, ln. 10-14). Taniguchi discloses yellow dye (col. 6, ln. 3). Taniguchi discloses using about 6.5 ounces per ton of dye (col. 8, Example 5; see calculation below). Taniguchi discloses the dye has increases tinctorial strength (col. 1, ln. 50-51) and good bleed resistance (col. 8, ln. 18). It would have been obvious to one of ordinary skill in the art at the time of invention to use about 6.5 ounces per ton of yellow dye in paper, as taught in Taniguchi, in the release paper backing, taught in Nagamoto in view of Yung, to obtain a release paper backing comprising 6.5 ounces per ton of yellow dye. One of ordinary skill in the art would have been motivated to use the yellow dye because it has increases tinctorial strength (col. 1, ln. 50-51) and good bleed resistance (col. 8, ln. 18).

Calculation: Claim range 1 to 6.5 ounces per ton = 1 ounce per ton = 1 ounce/32000 ounces = 0.003% and 6.5 ounces/32000 ounces = 0.02%. Taniguchi discloses: 0.02 parts dye/[.98 parts water + 100 parts] = 0.0198% dye.

Regarding claim 6, “b*” value on the L*a*b* scale is defined as a yellow color. Therefore, one of ordinary skill in the art would expect a yellow paper to exhibit a positive b* value.

Regarding claims 9, 11, and 12, Nagamoto discloses the first coating (barrier layer) comprises starch and clay (p. 3, para 0008).

Regarding claims 9, and 13, Nagamoto discloses a second coating (rarefraction agent, p. 2, para 0006), which comprises starch (p. 3, para 0006). Nagamoto discloses the second coating penetrates the core sheet to increase light transmittance (p. 3, para 0006).

16. Claims 4, 10-12, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagamoto, JP 2001-271295, in view of Yung, USPN 6,618,067, in view of Taniguchi, USPN 5,125,930 as applied to claims 1, 3, 6, 9, 11-13, 18-19, and 21 above, and further in view of Hershey et al., USPA 4,154,899.

Nagamoto in view of Yung in view of Taniguchi is relied on as above.

Nagamoto in view of Yung in view of Taniguchi does not teach the amount of clay in the first coating (barrier layer).

Hershey is drawn to a process coating paper to achieve desired properties, like moisture resistance (col. 1, ln. 14-17). Hershey teaches the coating comprises between 40% and 100% clay (col. 3, ln. 54-55). Hershey discloses a Gurley density between 3800 and 6500 (Gurley porosity, col. 12, Table III). Hershey teaches coating increases blister resistance (col. 12, ln. 16-17), paper smoothness, and paper finishing (col. 2, ln. 25-29). It would have been obvious to one of ordinary skill in the art at the time of invention to use a clay coating, as taught in Hershey, on the release paper backing, taught in Nagamoto in view of Yung in view of Taniguchi, to obtain a release paper backing having a clay coating on both sides of the core sheet. One of ordinary skill in the art would have been motivated to use a clay coating increase blister resistance (col. 12, ln. 16-17), increases the paper smoothness, and paper finishing (col. 2, ln. 25-29).

Regarding claims 11 and 12, Hershey teaches the coating includes a starch (hydroxyethylated starch ether, col. 4, ln. 60-61), a latex (styrene/butadiene polymer, col. 4, ln. 61), or a combination thereof (butadiene/styrene latex and starch, col. 5, ln. 8-10).

Response to Arguments

17. Regarding the 35 USC 112 rejections of claims 4 and 20, Applicant's arguments filed 12/09/2009 have been fully considered but they are not persuasive (Remarks, p. 6 and Tappi test T 536 om-02). Examiner acknowledges the Gurley density is a measure of time. However, applicant fails to address the basis of the rejection. The basis of the rejection is neither the specification, nor the claims indicate the volume of air that passes through the paper. Gurley density is based on the amount of time for various amounts of air to pass through paper. Therefore, both the specification and claims fail to indicate one of the two components necessary to give the claimed Gurley density a definite meaning.

18. Regarding the 35 USC 112 rejection of claim 21, Applicant's arguments filed 12/09/2009 have been fully considered but they are not persuasive (Remarks, p. 7). Applicant failed to explain how a dye increases light transmission.

19. Applicant's arguments with respect to claims 1, 3-4, 6, 9-13, 18-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WALTER MOORE whose telephone number is (571) 270-7372. The examiner can normally be reached on Monday-Thursday 9:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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